High Temperature Resistant Tfm Microwave Digestion Vessel Lids For Trace Analysis And Acid Evaporation Systems

Item Number: PL-CP140

Introduction

Upgrade your laboratory sample preparation with high-purity TFM microwave digestion vessel lids. These customizable components ensure leak-free performance and compatibility with advanced acid evaporation systems, delivering precise results for demanding trace elemental analysis across industrial research applications today.

Learn More

Application	Description	Key Benefit
Environmental Soil Analysis	Digestion of complex soil and sediment samples using concentrated acids for heavy metal quantification.	Ensures complete recovery of volatile analytes while resisting abrasive particulates.
Pharmaceutical Quality Control	Preparation of active pharmaceutical ingredients (APIs) and excipients for elemental impurity testing per USP <232>/<233>.	Ultra-low blank values prevent false positives in sensitive trace metal screening.
Petrochemical Refining	Digestion of crude oil, lubricants, and polymers to monitor catalyst residues and contaminants.	Exceptional resistance to high-temperature hydrocarbon reactions and aggressive acid mixtures.
Food and Beverage Safety	Digesting organic food matrices to detect toxic elements like Arsenic, Lead, and Cadmium.	Minimizes cross-contamination between batches through high-purity, easy-clean surfaces.
Geochemical Exploration	Dissolution of rock and mineral ores for precious metal assaying and rare earth element analysis.	Maintains structural seal integrity during prolonged high-temperature digestion cycles.
Semiconductor Materials	Trace analysis of high-purity chemicals and silicon wafers used in microelectronics manufacturing.	Prevents metallic contamination at the parts-per-trillion (PPT) level through fluoropolymer purity.
Clinical Research	Digestion of biological tissues and fluids for toxicological studies and nutrient monitoring.	Bio-inert material prevents sample interaction, ensuring accurate physiological data.

Feature	Specification Detail for PL-CP140
Product Item Number	PL-CP140
Material Composition	High-Purity TFM (Modified PTFE)
Compatibility	GT-400 Series and Standard Microwave Digestion Vessels
Application Compatibility	Compatible with Acid Evaporation and Acid-Driving Systems
Temperature Resistance	Optimized for High-Temperature Digestion Processes (Customizable)
Pressure Rating	Designed for High-Pressure Closed-Vessel Environments (Customizable)
Chemical Resistance	Full Resistance to HF, HNO3, HCl, H2SO4, and Aqua Regia
Manufacturing Process	Precision Isostatic Molding and CNC Machining
Dimensions	Custom Engineered to Client Vessel Specifications

Application	Description	Key Benefit
Feature	**Specification Detail for PL-CP140**	
Customization Options	Available for bespoke vessel sizes, venting styles, and thread patterns	
Surface Finish	High-Smoothness Finish to Minimize Sample Adhesion	